

Abstract of the Disclosure

1 An impact-reinforced piezocomposite transducer array
2 comprises a load supporting structure having a plurality of
3 cells, each of said cells comprises a piezocomposite transducer
4 element. The load supporting structure comprises a honeycomb
5 structure having a plurality of multi-sided cells or the
6 structure comprises a plurality of cylindrical cells. The
7 piezocomposite element includes a plurality of piezoceramic
8 rods encapsulated in a polymeric matrix to form a 1-3 composite
9 body. The transducer array may be used as a hydrophone or a
10 transmitter in a rugged environment such as on the hull of an
11 icebreaker ship.